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QUIZZES

Practice Test-1 (Homeostasis)



10 Questions



7 min

Topics

Mechanism of Homeostasis (Receptors, Control center, Effectors), Osmoregulation, Nitrogen containing excretory products

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Start Quiz

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Q

1/10



7 min



Hint

Q : Detection of change and signaling for effector's response to control system is:

A

Homeostatic mechanism

B

Feedback mechanism

C

Precursor mechanism

D

Hormonal mechanism

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Q

2/10



7 min



Hint

Q : The protection of internal environment from the harms of fluctuations in external environment is termed as:

A

Osmoregulation

B

Homeostasis

C

Negative feedback

D

Haemopoiesis

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SAEED MDCAT TEAM



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Q

3/10



7 min



Hint

Q : The mechanism of regulation, generally between organism and its environment, of solute and the gain and loss of water is:

A

Osmoregulation

B

Homeostasis

C

Thermoregulation

D

Excretion

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06 : 55



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Q

4/10



7 min



Hint

Q : Osmoregulation is the regulation of:

A

B

C

D

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Q

4/10



7 min



Hint

Q : Osmoregulation is the regulation of:

A

Water only

B

Organic solutes only

C

Inorganic solutes only

D

Water, organic & inorganic solutes

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06 : 52



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Q

5/10



7 min



Hint

Q : It is central requirement for survival of all organisms:

A

Reproduction

B

Photosynthesis

C

Homeostasis

D

Locomotion

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SAEED MDCAT TEAM



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Q

6/10



7 min



Hint

Q : Thermoregulation is maintenance of temperature:

A

At fixed point

B

In a wide range

C

According to external temperature

D

Within tolerable range

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Q

7/10



7 min



Hint

Q : If a cell is placed in hypotonic external environment, then there will be:

A

Entry of water into the cell

B

Entry of salts into the cell

C

Concentration of cell solution

D

Dilution of external environment

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Q

8/10



7 min



Hint

Q : _____ have adaptations for the reduced rate of transpiration.

A

Hydrophytes

B

Mesophytes

C

Halophytes

D

Xerophytes

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Q

9/10



7 min



Hint

Q : Some xerophytes, during the driest season, shed their leaves to:

A

Restrict transpiration partially

B

Restrict transpiration completely

C

Promote transpiration partially

D

Promote transpiration completely

SAEED MDCAT

SAEED MDCAT TEAM



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Q

10/10



7 min



Hint

Q : If 1000 ml water is required to remove N_2 in the form of ammonia then how much water will be required to remove same quantity of N_2 in the form of urea:

A

50ml

B

100ml

C

500ml

D

200ml

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Correct



Unattempted



Incorrect



1/10

Q : Detection of change and signaling for effector's response to control system is:



Homeostatic mechanism



Feedback mechanism



Precursor mechanism



Hormonal mechanism

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Explanation



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The target of homeostasis is to maintain the internal environment within a narrow range and it is mostly done through feedback mechanism in which response is initiated or modified by detecting changes by receptors or effectors.



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Correct



Unattempted



Incorrect



2/10

Q : The protection of internal environment from the harms of fluctuations in external environment is termed as:



Osmoregulation



Homeostasis



Negative feedback



Haemopoiesis

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Explanation



SAEEDMDCAT

The maintenance of internal environment from harms of the fluctuations of external environment is done by removing wastes, maintaining body temperature and concentration of salts and water.



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Correct



Unattempted



Incorrect



3/10

Q : The mechanism of regulation, generally between organism and its environment, of solute and the gain and loss of water is:



Osmoregulation



Homeostasis



Thermoregulation



Excretion

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Explanation



SAEEDMDCAT

Homeostasis involves regulation of temperature, regulation and removal of wastes and osmotic regulation of body by maintaining salt and water concentration.



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Correct



Unattempted



Incorrect



4/10

Q : Osmoregulation is the regulation of:



Water only



Organic solutes only



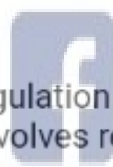
Inorganic solutes only



Water, organic & inorganic solutes

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Explanation
SAEED MDCAT TEAM



SAEEDMDCAT

Osmoregulation is the maintenance of osmotic balance of body which involves regulating water and solutes.



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Correct



Unattempted



Incorrect



5/10

Q : It is central requirement for survival of all organisms:



Reproduction



Photosynthesis



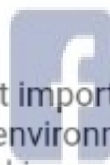
Homeostasis



Locomotion

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Explanation
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It is most important for the survival of an organism to maintain its internal environment in its narrow range so that all of the body parts keep working.



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Correct



Unattempted



Incorrect



6/10

Q : Thermoregulation is maintenance of temperature:



At fixed point



In a wide range



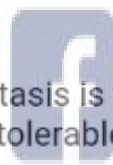
According to external temperature



Within tolerable range

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Explanation
SAEED MDCAT TEAM



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Homeostasis is the maintenance of internal environment of body within a tolerable range.



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Correct



Unattempted



Incorrect



7/10

Q : If a cell is placed in hypotonic external environment, then there will be:



Entry of water into the cell



Entry of salts into the cell



Concentration of cell solution



Dilution of external environment

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Explanation
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Water always moves from higher water potential to lower water potential. Presence of solutes decreases water potential.



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Correct



Unattempted



Incorrect



8/10

Q : _____ have adaptations for the reduced rate of transpiration.



Hydrophytes



Mesophytes



Halophytes

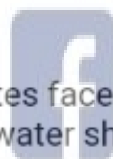


Xerophytes

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Explanation

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Xerophytes face extreme scarcity of water so they are adapted to prevent water shortage. They have needle like leaves with waxy cuticle, stomata in lower epidermis and in depression.



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Correct



Unattempted



Incorrect



9/10

Q : Some xerophytes, during the driest season, shed their leaves to:



Restrict transpiration partially



Restrict transpiration completely



Promote transpiration partially

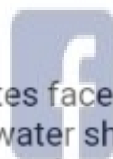


Promote transpiration completely

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Explanation

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Xerophytes face extreme scarcity of water so they are adapted to prevent water shortage by reducing transpiration. During driest conditions, they shed their leaves to reduce rate of transpiration.



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Correct



Unattempted



Incorrect



10/10

Q : If 1000 ml water is required to remove N_2 in the form of ammonia then how much water will be required to remove same quantity of N_2 in the form of urea:



50ml



100ml



500ml



200ml

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Explanation



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Removal of urea requires ten times less water than it is required to remove equal amount of ammonia.



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QUIZZES

Practice Test-2 (Homeostasis)



10 Questions



7 min

Topics

Excretory System of Humans, Structure and Functions of Kidney, Nephron, Renal Disorders, Classification of Animals based on Thermoregulation, Thermoregulation in Human

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Start Quiz



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Q

1/10



7 min



Hint

Q : Bilirubin is produced as a result of breakdown of:

A

Proteins

B

Nucleic acids

C

Protein part of hemoglobin

D

Non-protein part of hemoglobin

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06 : 58



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Q

2/10



7 min



Hint

Q : Primary structures for eliminating waste products in our body are:

A

Liver & pancreas

B

Kidneys & skin

C

Intestine & lungs

D

Liver & kidneys

SAEED MDCAT

SAEED MDCAT TEAM



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Q

3/10



7 min



Hint

Q : Weight of kidneys accounts for less than _____ of the total body weight.

A

1%

B

2%

C

10%

D

20%

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06 : 55



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Q

5/10



7 min



Hint

Q : Previously employed procedure to remove kidney stones is:

A

Lithotripsy

B

Surgery

C

ESWL

D

Dialysis

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SAEED MDCAT TEAM



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Q

4/10



7 min



Hint

Q : These are specifically instrumental in the production of concentrated urine:

A

Cortical nephrons

B

Juxtamedullary nephrons

C

Collecting ducts

D

Renal pelvis

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06 : 54



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Q

6/10



7 min



Hint

Q : Lithotripsy is involved in removal of stone from kidney through:

A

Surgery

B

Radiations

C

Medicines

D

Dialysis

SAEED MDCAT

SAEED MDCAT TEAM



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Q

7/10



7 min



Hint

Q : Point out the correct option:

A

Bat – Heterotherms

B

Flying insects – Ectotherms

C

Frog – Endotherms

D

Humming bird - Endotherms

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06 : 50



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Q

8/10



7 min



Hint

Q : Which of the following has main role in homeostasis of body temperature?

A

Kidneys

B

Skin

C

Lungs

D

Bones

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Q

9/10



7 min



Hint

Q : Renal corpuscles can be divided into:

A

Arteriole and glomerulus

B

Arteriole and Bowman's capsule

C

Renal pyramidsAfferent and efferent arteriole

D

Bowman's capsule and glomerulus

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SAEED MDCAT TEAM



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Q : Which of the following represent capillary network of nephrons?

A

Bowman's capsule & glomerulus

B

Proximal & distal convoluted tubules

C

Afferent & efferent vessels

D

Glomerulus & vasa recta

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Correct



Unattempted



Incorrect



1/10

Q : Bilirubin is produced as a result of breakdown of:



Proteins



Nucleic acids



Protein part of hemoglobin



Non-protein part of hemoglobin

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Explanation

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Bilirubin is produced due to metabolism of haem group of hemoglobin.



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Correct



Unattempted



Incorrect



2/10

Q : Primary structures for eliminating waste products in our body are:



Liver & pancreas



Kidneys & skin



Intestine & lungs

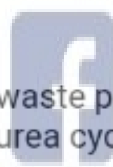


Liver & kidneys

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Explanation

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Primary waste product in urine of human is urea which is produced through urea cycle.



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Correct



Unattempted



Incorrect



3/10

Q : Weight of kidneys accounts for less than _____ of the total body weight.



1%



2%



10%



20%

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SAEED MDCAT TEAM

Explanation



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Weight of human kidneys counts less than 1% of the total body weight while receives 20% of blood supplies with each cardiac beat.



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Correct



Unattempted



Incorrect



4/10

Q : These are specifically instrumental in the production of concentrated urine:



Cortical nephrons



Juxtamedullary nephrons



Collecting ducts



Renal pelvis

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Explanation



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The nephrons which have loop of Henle extended deep into medulla will be involved in the formation of concentrated urine because of concentrated interstitial surroundings.



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Correct



Unattempted



Incorrect



5/10

Q : Previously employed procedure to remove kidney stones is:



Lithotripsy



Surgery



ESWL

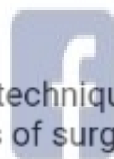


Dialysis

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Explanation

SAEED MDCAT TEAM



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Modern techniques like lithotripsy have replaced the conventional methods of surgery.



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Correct



Unattempted



Incorrect



6/10

Q : Lithotripsy is involved in removal of stone from kidney through:



Surgery



Radiations



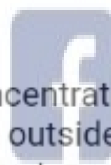
Medicines



Dialysis

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Explanation
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High concentration of X-rays or ultrasound are directed from a machine outside of the body to the stone inside. The shock waves break the stone in tiny pieces or into sand which are passed out of the body through urine.



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Correct



Unattempted



Incorrect



7/10

Q : Point out the correct option:



Bat – Heterotherms



Flying insects – Ectotherms



Frog – Endotherms

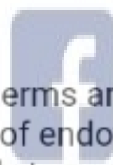


Humming bird - Endotherms

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Explanation

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Heterotherms are those animals which are capable of varying degrees of endothermic heat production but generally do not regulate their body temperature within a narrow range. For example bats, humming birds etc.



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Correct



Unattempted



Incorrect



8/10

Q : Which of the following has main role in homeostasis of body temperature?



Kidneys



Skin



Lungs

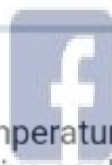


Bones

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SAEED MDCAT TEAM

Explanation



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Body temperature when increased is brought back to normal by evaporative cooling and a decreased body temperature is dealt with preventing peripheral heat loss.



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Correct



Unattempted



Incorrect



9/10

Q : Renal corpuscles can be divided into:



Arteriole and glomerulus



Arteriole and Bowman's capsule



Afferent and efferent arteriole

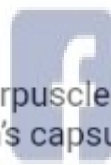


Bowman's capsule and glomerulus

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Explanation

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Renal corpuscle is involved in filtration of blood (Glomerulus + Bowman's capsule).



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Correct



Unattempted



Incorrect



10/10

Q : Which of the following represent capillary network of nephrons?



Bowman's capsule & glomerulus



Proximal & distal convoluted tubules



Afferent & efferent vessels

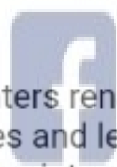


Glomerulus & vasa recta

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Explanation

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Blood enters renal corpuscle by afferent arteriole which divides into capillaries and leaves via efferent arteriole which further divides and subdivides into capillaries that supply blood to the tubular parts of nephron.